

tive phenomena of the gastrocnemius muscle, as based on the researches I have just referred to, will find it succinctly given in an admirable little work just published by Prof. Rosenthal, in the "International Scientific Series" ('Allgemeine Physiologie der Muskel und Nerven'), pp. 195-197. He will thereby be able to satisfy himself that that explanation covers many of the facts to which I directed attention in my "Note."

I am, my dear Sir,

Yours faithfully,

J. B. SANDERSON.

Prof. Huxley, Sec. R.S.

VII. "Photographic Image of Stratified Discharges." A Letter to Prof. STOKES, Sec. R.S., by W. SPOTTISWOODE, M.A., Treas. R.S. Received June 2, 1877.

41 Grosvenor Place,
June 2, 1877.

MY DEAR STOKES,—I am sure that you will be interested to hear that Capt. Abney yesterday succeeded in photographing some of the phenomena which I had observed last year with a revolving mirror, and which are described in my paper "On Stratified Discharges, III." (Proceedings of the Royal Society, vol. xxv. p. 73). The success of the operation was due mainly to his skill, but partly also to the great brilliancy and long duration of the discharges from my large induction-coil, described in the 'Phil. Mag.' for February last.

The tube used on this occasion was a small hydrogen-tube of conical form, the effect of which, as seen in a revolving mirror, is represented in fig. 3 of the paper above quoted. The photographic image was obtained, not by the use of a mirror, but by moving the sensitive plate across the field of view during the continuance of the discharge. In this the first result, the position of the striæ, their proper motion, their grouping in pairs of different actinic power, and consequently of colour (a phenomenon well known in hydrogen tubes), are distinctly developed. Other features, of which I reserve the description, are also noticeable.

I hope on some future occasion to make a fuller communication upon the subject to the Royal Society; but in the mean time, if you think the matter of sufficient interest, I shall be much obliged by your offering this as a Preliminary Note.

Believe me,

Yours very sincerely,

W. SPOTTISWOODE.